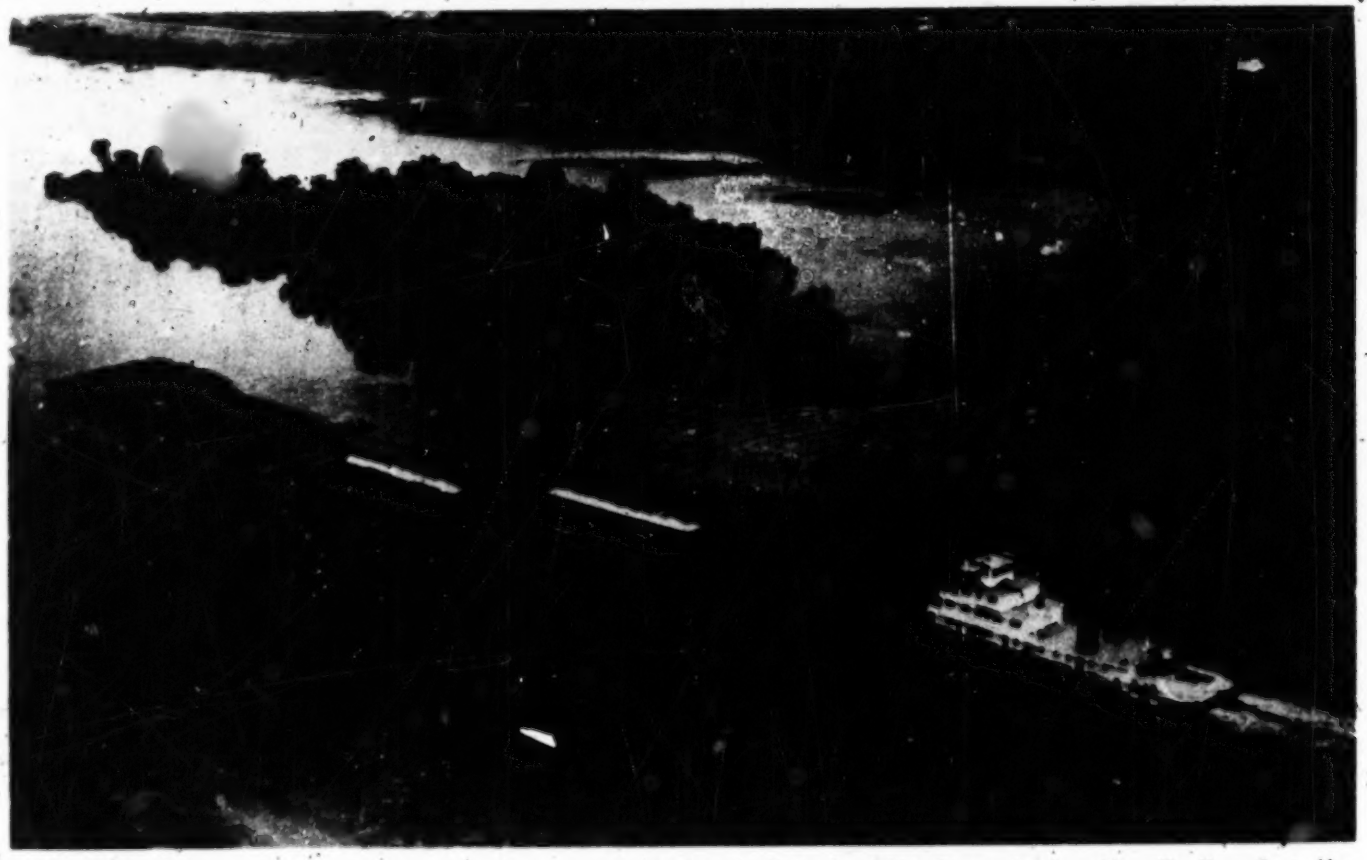
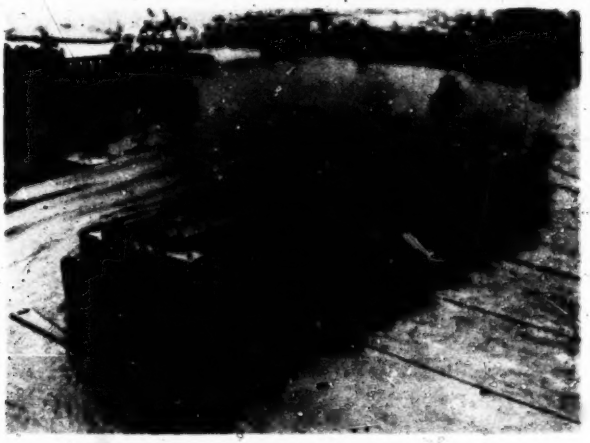


BARGE LOAD of evaporated milk bound for Puerto Rico was moved recently by Union Barge Line Corporation from Maysville, Kentucky to New Orleans. Here is UBL towboat *Reliance* and tow downbound on the Ohio River.

APPENDIX B
WORLD'S LARGEST OIL BARGE BUILT BY BETHLEHEM BEAUMONT



The world's largest non-propelled oil barge following her launching at Bethlehem's Beaumont shipyard. Built for Hess, Inc., of Perth Amboy, N. J., and bearing the name *Ethel H*, the steel craft has an overall length of 305 feet, width of 65 feet and draft of 22 feet. She will carry more than 60,000 barrels of Bunker C fuel oil at 20-foot draft—about three times the capacity of most modern oil barges—and can discharge her cargo at the rate of 10,000 barrels an hour.

The largest oil barge ever constructed for the transportation of petroleum products was launched recently by Bethlehem Steel Company's Beaumont Yard.

Bearing the name *Ethel H.*, the craft was built for Hess, Inc., oil marketers and tanker operators with headquarters at Perth Amboy. Of all-welded steel, the *Ethel H.* has an overall length of 305 feet, width of 65 feet, depth of 22 feet, cubic capacity of 65,900 barrels and cargo pumping capacity of 10,000 barrels per hour. Her rated capacity at 20-foot draft is 60,000 barrels of Bunker C fuel oil.

H. B. Pillatt, general manager of the Beaumont Yard, noted that an increasing number of big tankers have been constructed within the past few years, and that some of these vessels draw up to about 40 feet of water fully loaded. The passage of such deep-draft craft through the bays and rivers leading to certain refineries on the East Coast is difficult, and in some cases, impossible.

During the past year or so, smaller tankers—ranging from warbuilt T-2s to recently constructed 32,000-dwt. vessels—have been employed to lighten the larger carriers before they reach these shallower waters so that the latter may move on to their destinations.

He pointed out, for instance, that a single lightering by the *Ethel H.* of a 46,000-dwt. tanker would reduce the latter's draft by about 5-feet, or enough in some cases to permit the larger vessel to proceed to her destination without further lightering or delay.

The total discharge rate of 10,000 barrels per hour covers a wide range of products, ranging from gasolines and light oils to viscous crudes and heavy fuel oils, at temperatures ranging to 150° F. All cargo compartments are equipped with heating coils, and she has two independent ballast tanks to control trim.

DUAL-PURPOSE COVERED BARGES "BIMBO" & "SAMBO"

Two new dual-purpose covered cargo barges, designed for operation in either deep or shallow water, have just entered service on the Atlantic Intracoastal Waterway between Trenton, N. J. and Jacksonville, Fla.

Built at the Wilmington, Del. shipyards of Dravo Corporation, Pittsburgh, and christened the *Bimbo* and the *Sambo*, the semi-integrated barges are being used by the Gulf Atlantic Towing Corporation, of Jacksonville, to carry nitrate of soda, ilmenite, paper products, steel, pipe and general cargo. They also are certified for voyages to and from Havana, Cuba. Each barge is 195 feet long, 35 feet wide and 12 feet 3 inches deep and has a cargo capacity of 1350 net tons. Design of the hull combines minimum towing resistance in shallow water with adequate stability in deep water.

The square stern acts as a skeg to prevent the vessel from yawing or side-slipping when being towed behind a tug. It also permits two barges to be butted together to form an unbroken hull line for use with a towboat. Elimination of one rake-end increases capacity of the barge by about 50 tons.

Cargo is protected by Dravo's water-tight rolling hatch covers, which are secured by specially designed clamps. Three 28-foot-wide hatch openings facilitate loading and unloading. The forward opening is 35½ feet long, the center hatch 60 feet and the aft hatch 24 feet. Four-foot-high coamings are installed around the perimeter of the hatch openings.

Gulf Atlantic Towing operates as far west as Houston, Texas, and may use the new barges on both the Atlantic and Gulf Intracoastal Waterways, as well as in short coastwise service. The firm's fleet includes four towboats, 17 tugs and a variety of barges, including several operated on a charter basis.

APPENDIX D

DRAVO DELIVERS TEN HOPPER BARGES TO UNION BARGE

Ten more jumbo-sized open hopper barges have been added to the fleet of Union Barge Line Corporation, Pittsburgh. UBL officials point out that use of the 195-foot craft, which have 43 per cent more cargo capacity than standard 175-foot hopper barges, enables this common carrier to continue improving its service to shippers.

Multi-barge shipments can be transported in fewer barges, thus reducing loading and unloading time, and shipments too large for a single 175-foot barge but not large enough for two can be transported in just one of the new barges. In addition, certain types of bulky machinery and structural steel members which will not fit in a standard barge can be accommodated easily in a "jumbo."

The semi-integrated hulls are 35 feet wide, 12 feet deep and will carry approximately 1275 tons at 8-foot draft. They were built for UBL by Dravo Corporation, Pittsburgh. Its square stern gives each of the new barges approximately 35 tons more cargo capacity than a double-rake barge of the same dimensions. In addition, towing efficiency can be increased by butting two barges together at the box end to form the equivalent of an unbroken hull line.

The jumbo's cargo box alone—173 feet long and 28 feet 6 inches wide at deck level—is larger than the overall deck area of the standard hopper. A 12-inch-high coaming increases capacity for low density cargoes like scrap tin plate.

The new craft are being used to transport such cargoes as steel pipe, steel plates, steel slabs, coal, fabricated steel, aluminum slabs, barytes, sulphur, fluorspar, ferro-alloys, and various kinds of scrap. Addition of the ten new hulls brings Union's fleet to almost 300 barges of all types. These include 50 tank barges, one of the largest tank fleets operated by any common carrier. The firm also operates a number of barges under charter from other operators and handles many shipper-owned barges.